Name: Period: Date:

**Water Consumption Calculation KEY**

**Collect data for 4 days**

Water Consumption

* Washing hands
  + Day 1 – 15 X 2 = 30 gallons
  + Day 2 – 20 X 2 gallons = 40 gallons
  + Day 3 – 13 X 2 gallons = 26 gallons
  + Day 4 –22 X 2 gallons = 44 gallons
    - * TOTAL DRINKING WATER = 140 gallons
* Flushing toilet
  + 1 flush = 2 gallons
    - Day 1 – 6 X 2 = 12 gallons
    - Day 2 – 11 X 2 = 22 gallons
    - Day 3 – 6 X 2 = 12 gallons
    - Day 4 – 7 X 2 = 14 gallons
      * TOTAL FLUSHING TOILET = 60 gallons
* Brushing teeth
  + Water running slightly = 2 gallons
    - Day 1 – 2 brushes X 2 gallons = 4 gallons
    - Day 2 – 2 brushes X 2 gallons = 4 gallons
    - Day 3 – 2 brushes X 2 gallons = 4 gallons
    - Day 4 – 2 brushes X 2 gallons = 4 gallons
      * TOTAL BRUSHING TEETH = 16 gallons
* Load of laundry
  + 1 load = 40 gallons/number of people in household
    - Day 1 – 2 loads X 40 gallons = 80 gallons/4 people = 20 gal.
    - Day 2
    - Day 3 – 2 loads X 40 gallons = 80 gallons/4 people = 20 gal.
    - Day 4
      * TOTAL LOAD OF LAUNDRY = 40 gallons
* Shower/bath
  + 5 gallons per minute
    - Day 1 – 8 minutes X 5 gallons = 40 gallons
    - Day 2 – 7 minutes X 5 gallons = 35 gallons
    - Day 3 – 7 minutes X 5 gallons = 35 gallons
    - Day 4 – 8 minutes X 5 gallons = 40 gallons
      * TOTAL SHOWER/BATH = 150 gallons
* Dishwasher
  + 1 load = 20 gallons/number of people in household
    - Day 1 – none
    - Day 2 – none
    - Day 3 – 1 load (20 gallons)/4 people = 5 gallons
    - Day 4 – none
      * TOTAL DISHWASHER = 5 gallons
* Dishwashing by hand
  + Water in sink with stopper to wash (10 gallons/number of people in household)
  + Water running to rinse (30 gallons/number of people in household)
    - Day 1 – 1 load to wash (10 gallons)/4 people = 2.5 gallons; 1 load to rinse (30 gallons)/4 people = 7.5 gallons; 2.5 + 7.5 = 10 gallons
    - Day 2 -- 1 load to wash (10 gallons)/4 people = 2.5 gallons; 1 load to rinse (30 gallons)/4 people = 10 gallons; 2.5 + 7.5 = 10 gallons
    - Day 3 – none
    - Day 4 -- 1 load to wash (10 gallons)/4 people = 2.5 gallons; 1 load to rinse (30 gallons)/4 people = 7.5 gallons; 2.5 + 7.5 = 10 gallons
      * TOTAL DISHWASHING = 30 gallons

TOTAL WATER CONSUMPTION = 140 + 60 + 16 + 40 + 150 + 5 + 30 = 441 gallons

Your total x number of people in your household = 441 X 4 = 1,764 gallons

Your total x 7.6 billion people (world population) = 441 X 7.6 billion = 1,764,000,000 gallons

**GRADING FOR WATER CALCULATION CONSUMPTION:**

Data collected for four (4) days = 25 points

* Tallies, slash marks or numbers included

All WORK shown = 75 points

* (20) Totals per day
* (40) Totals for each section
* (5) Total for personal water usage
* (5) Total for household usage
* (5) Total for world population usage